

FIG. 1A

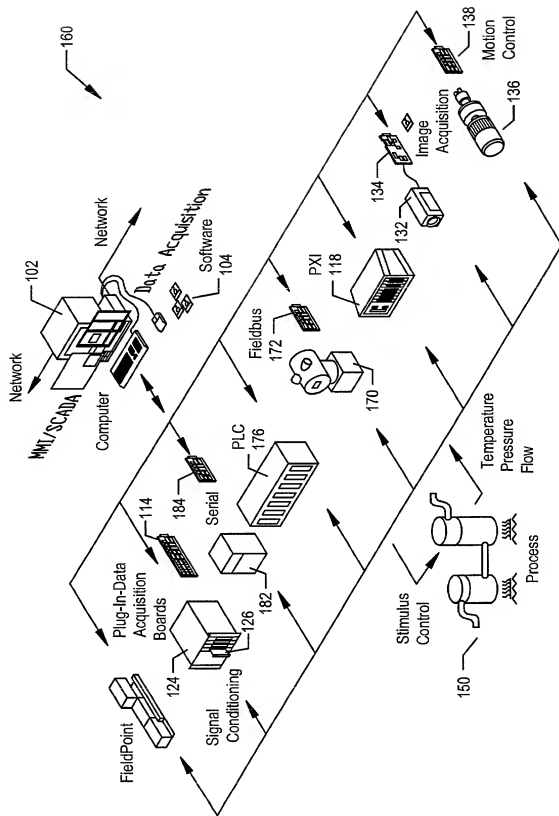


FIG. 1B

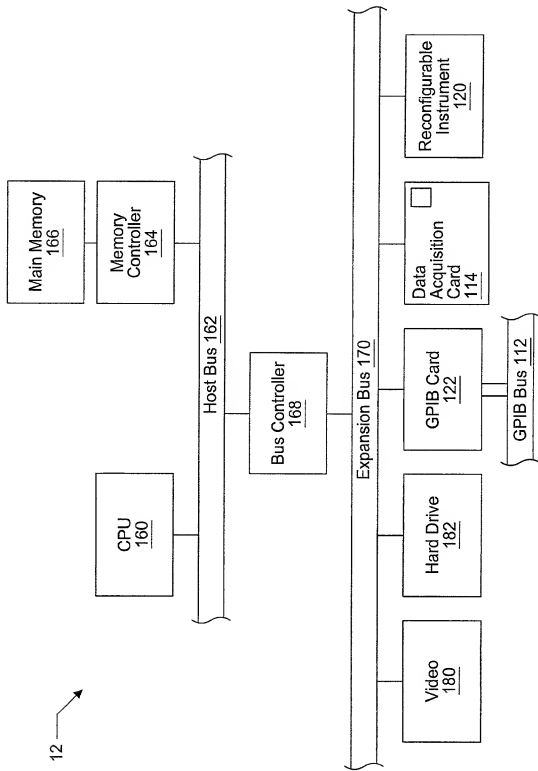


Figure 2

1008792.11301
1008792.11301

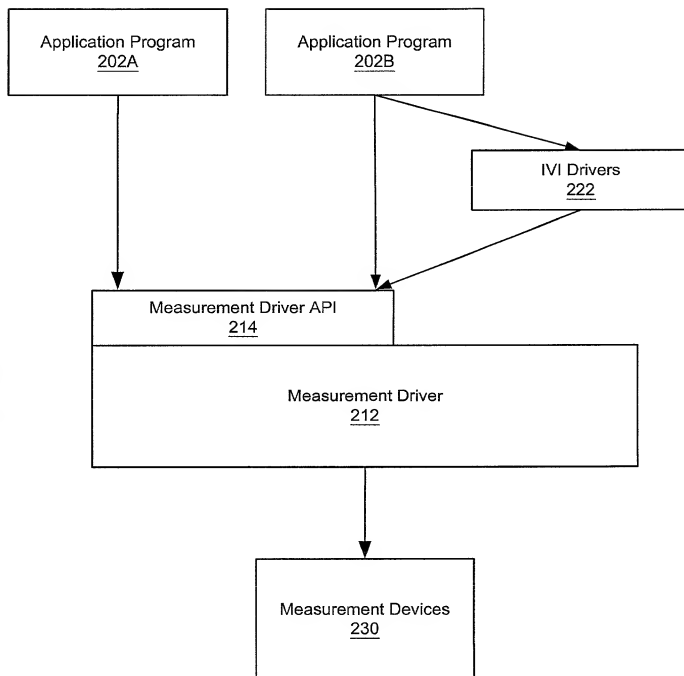


Figure 3

Measurement Driver
Components
400

Measurement Driver
Program Products
450

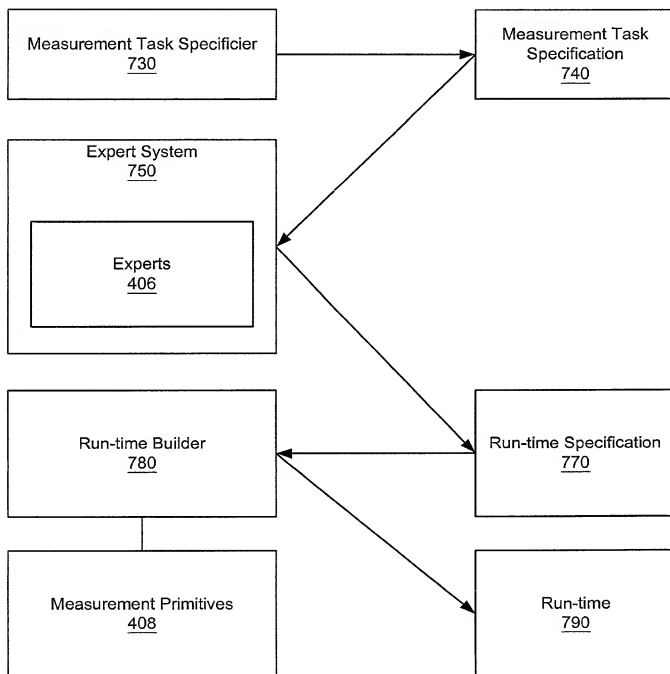


Figure 4

10068792.11301

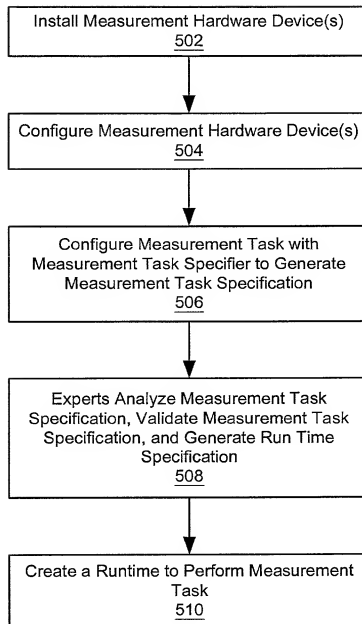


Figure 5

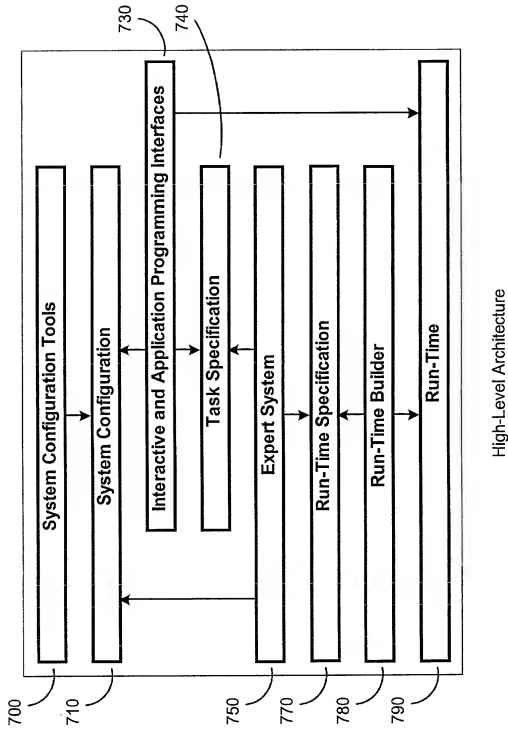


Figure 6

System Configuration and Task Specification

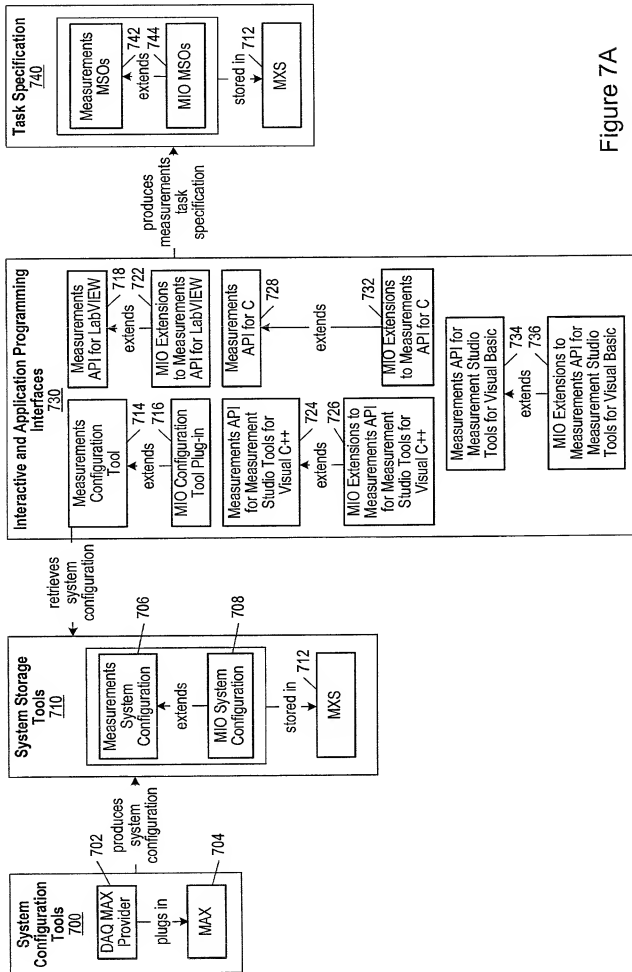


Figure 7A

Compiling Task Specification to Task Run-time Specification

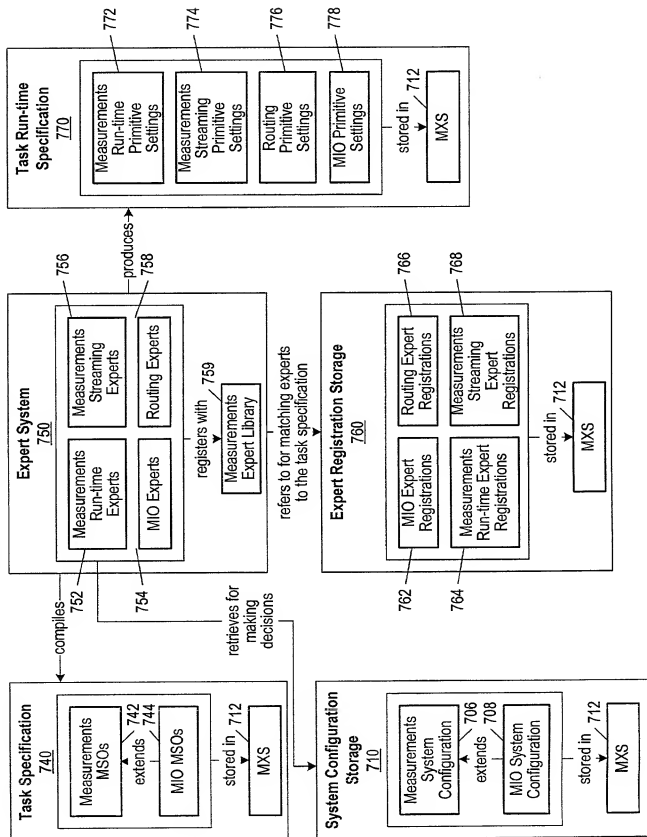


Figure 7B

Building Task Run-time from Task Run-time Specification

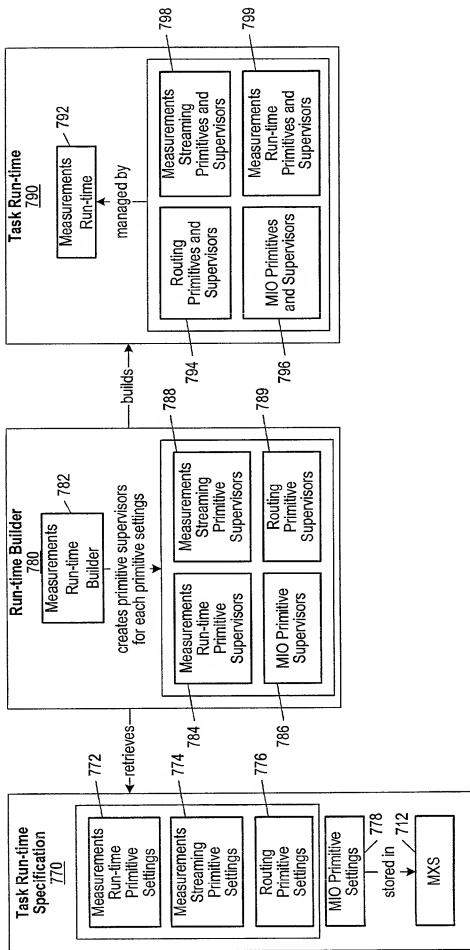


Figure 7C

Executing Tasks

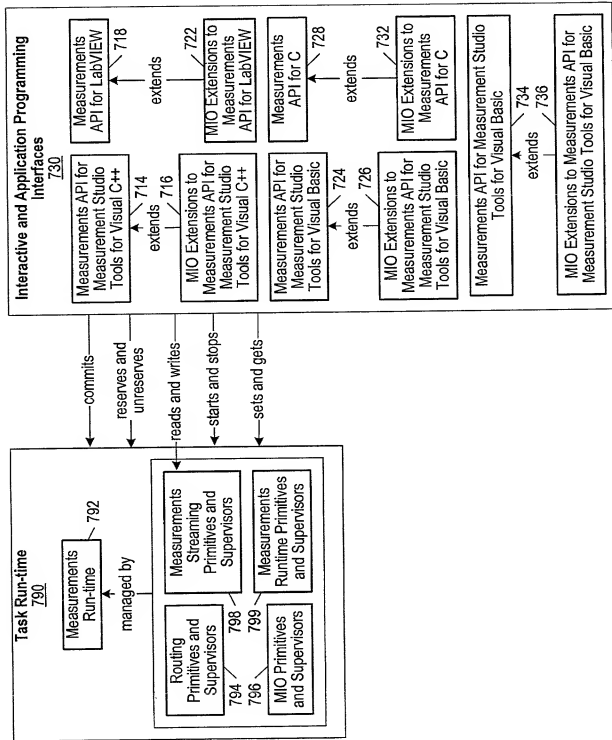


Figure 7D

Packages for System Configuration and Task Specification

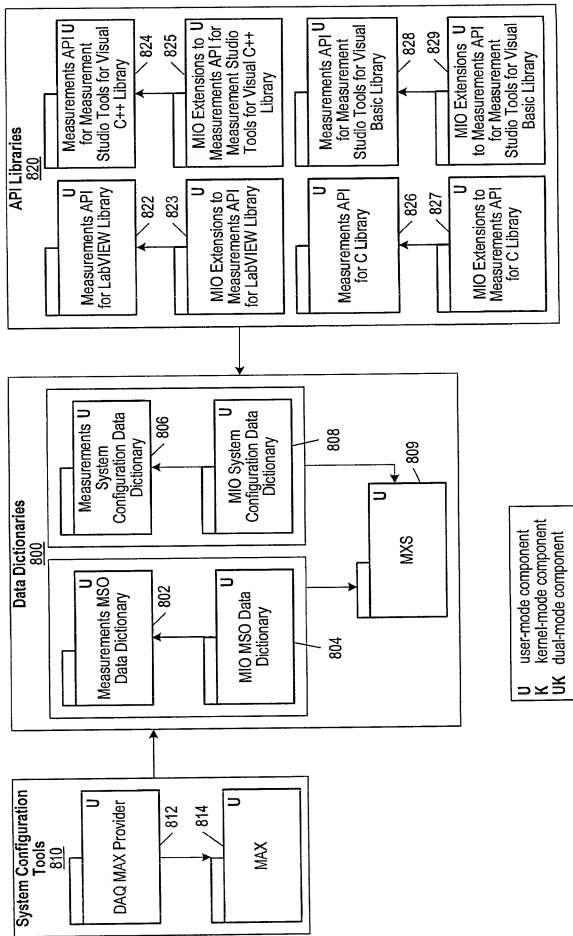


Figure 8A

Packages for Compiling Task Specification to Run-time Specification

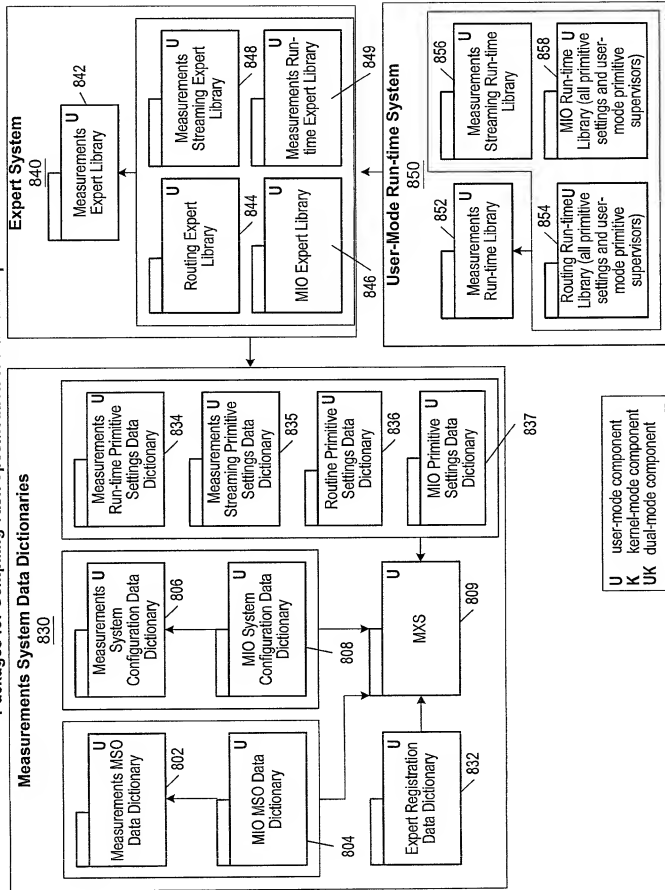


Figure 8B

Packages for Building Task Run-time from Run-time Specification

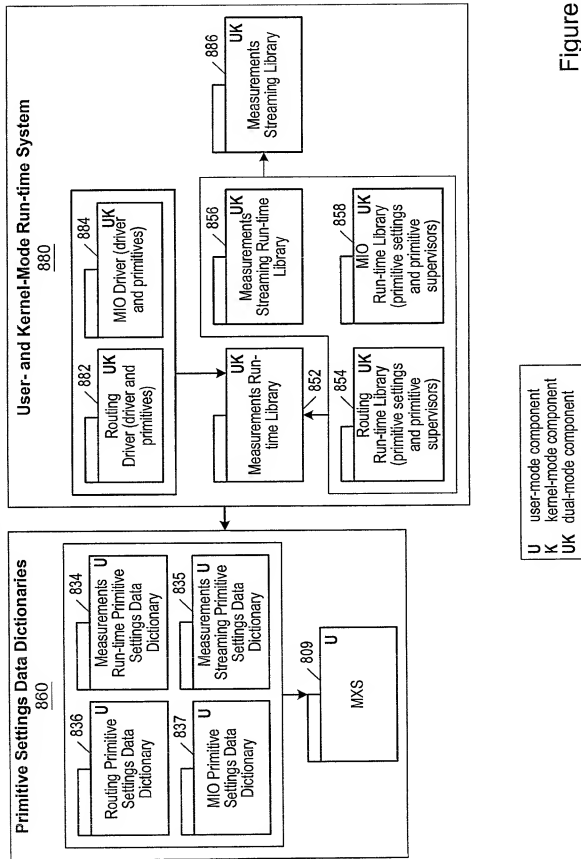


Figure 8C

Packages for Executing Task Run-time

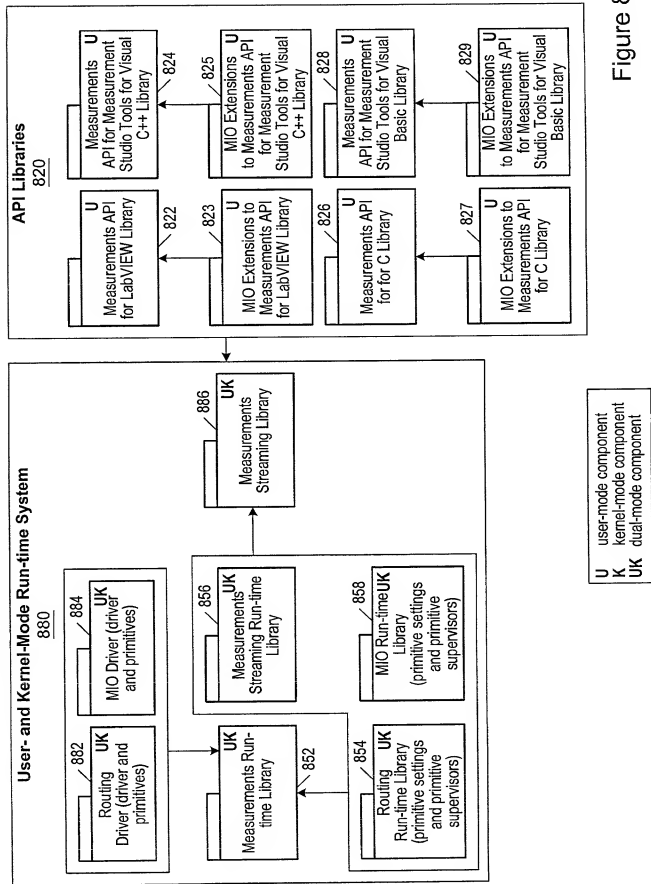


Figure 8D

State Diagram for Measurement Tasks

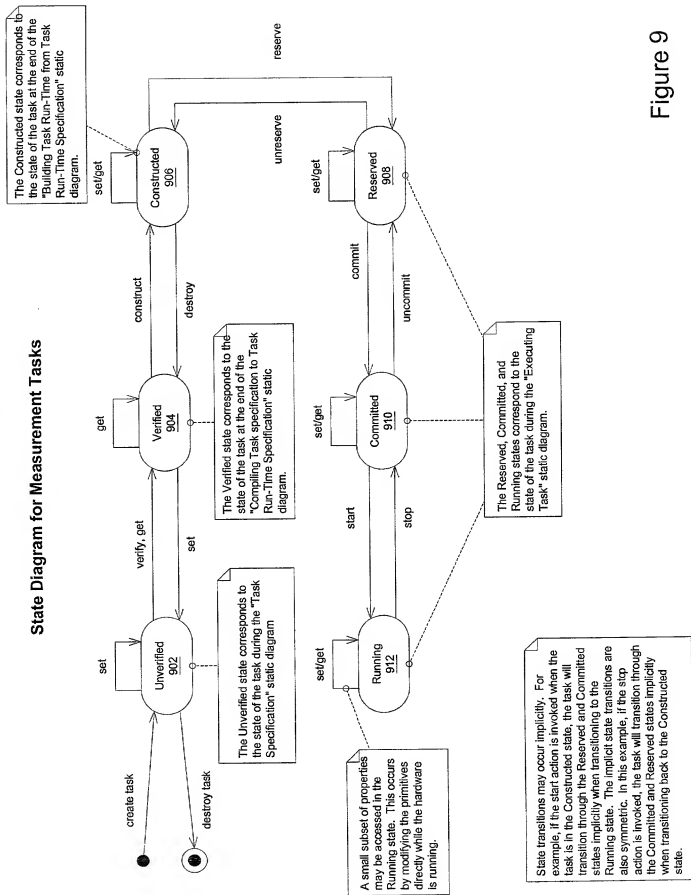


Figure 9

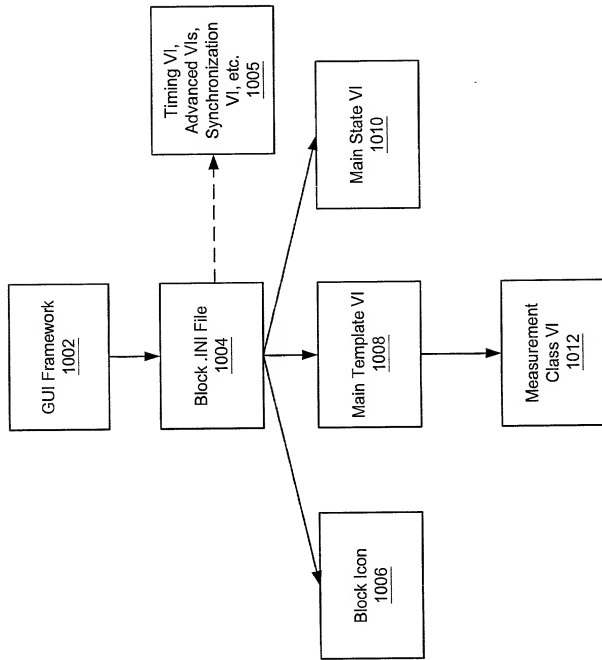


Figure 10

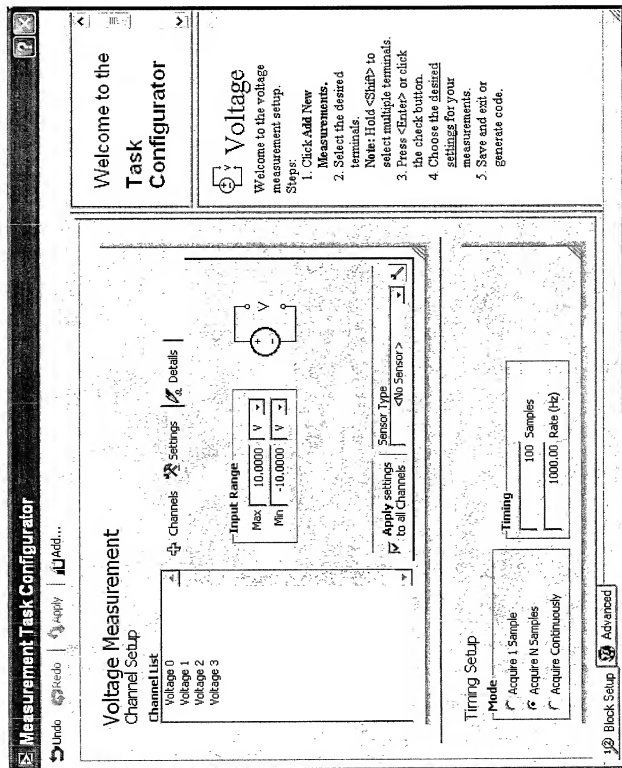


Figure 11

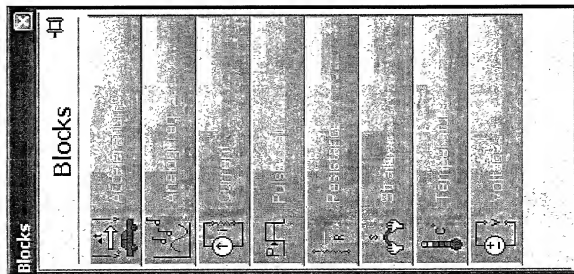


Figure 12A

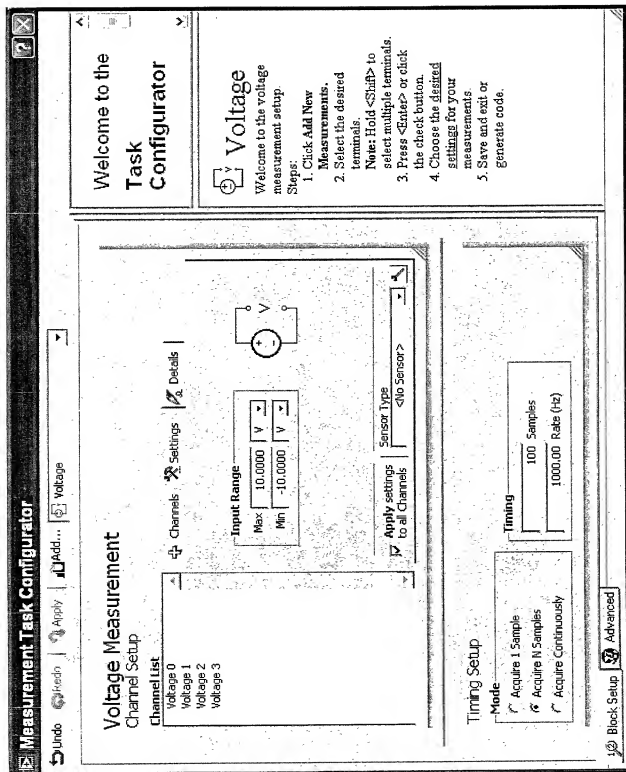


Figure 12B

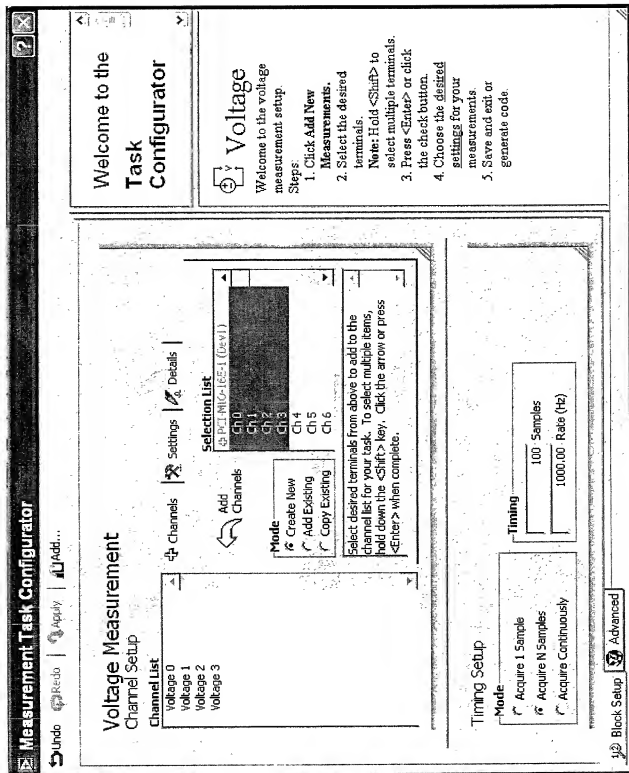


Figure 12C

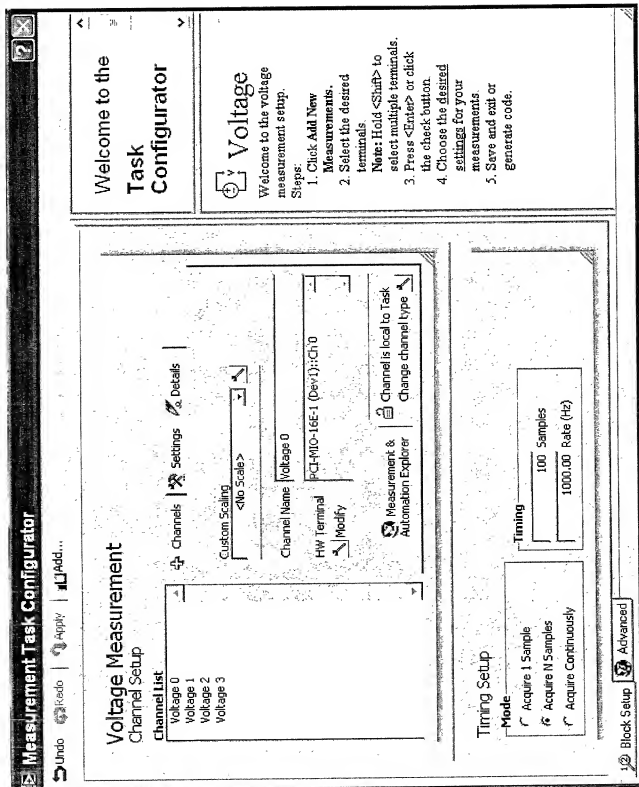


Figure 12D

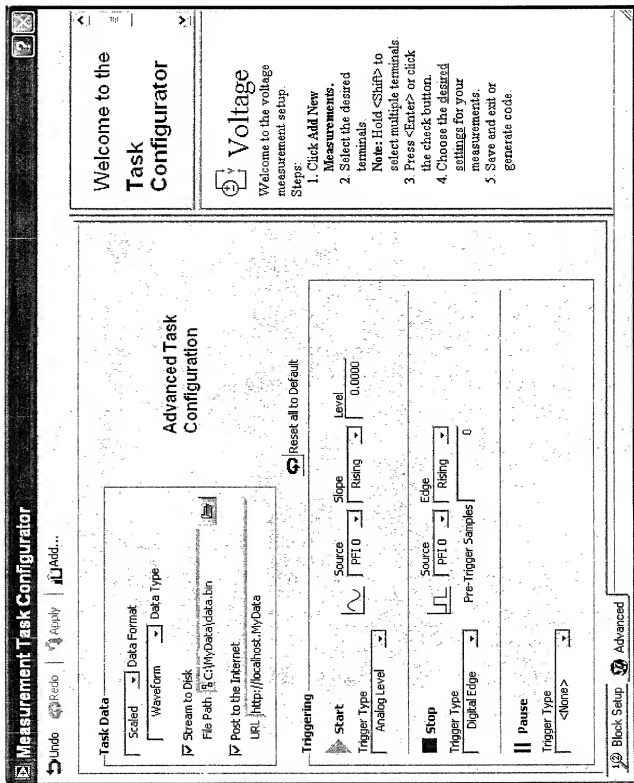


Figure 13

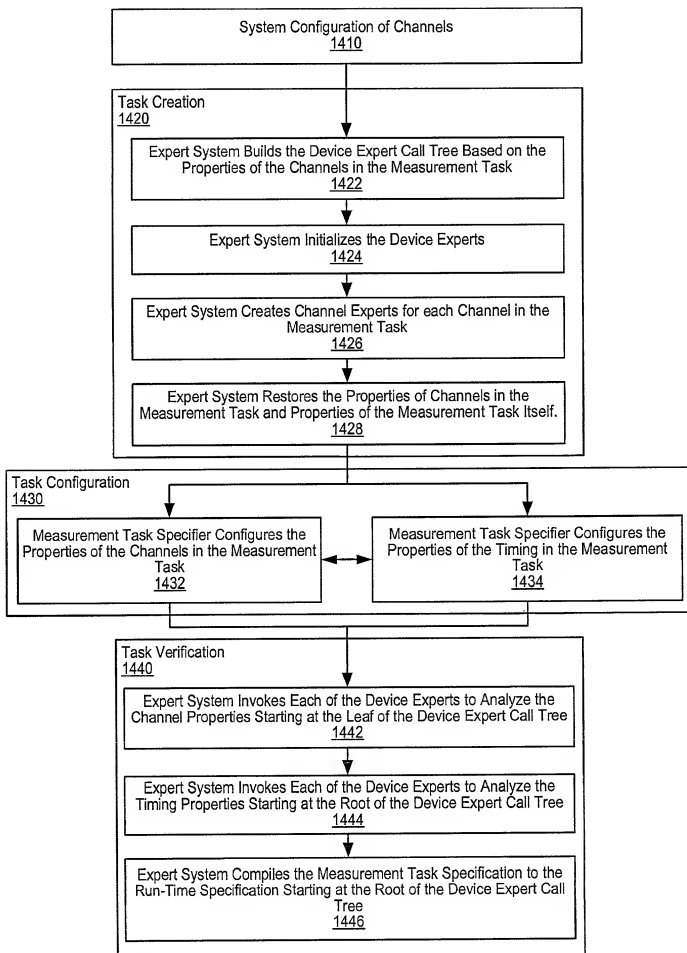


Figure 14

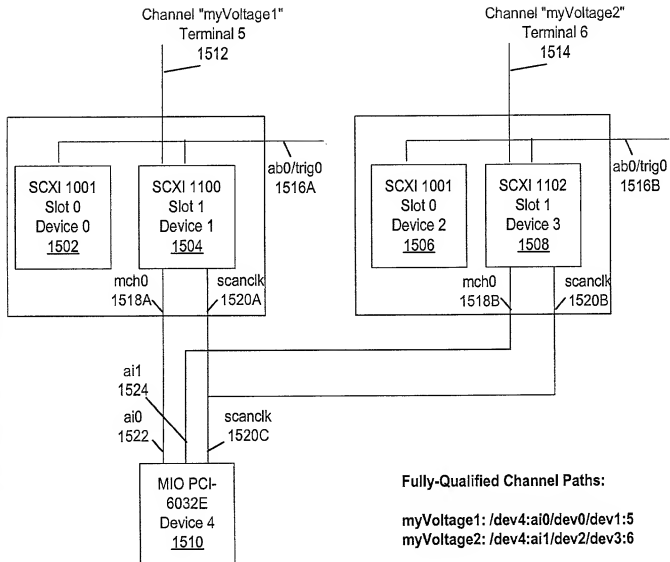
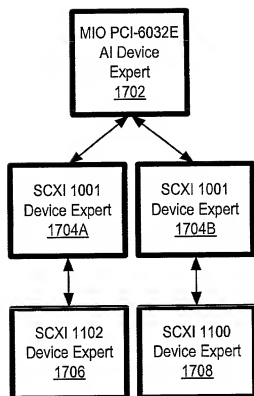


Figure 15

[illegible]

Create Device Expert Call Tree

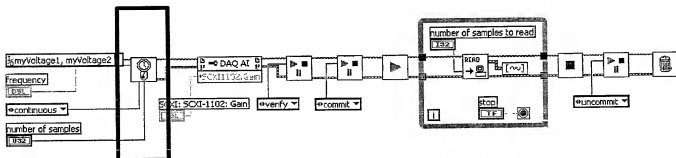
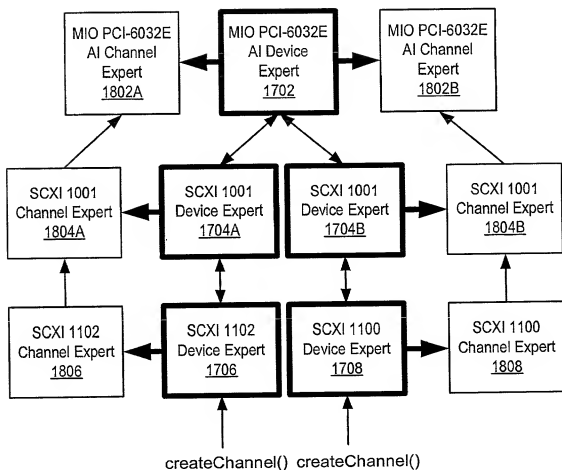


Figure 17



Create Channel Experts

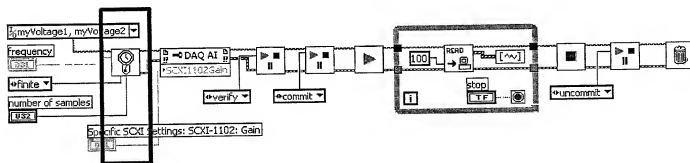
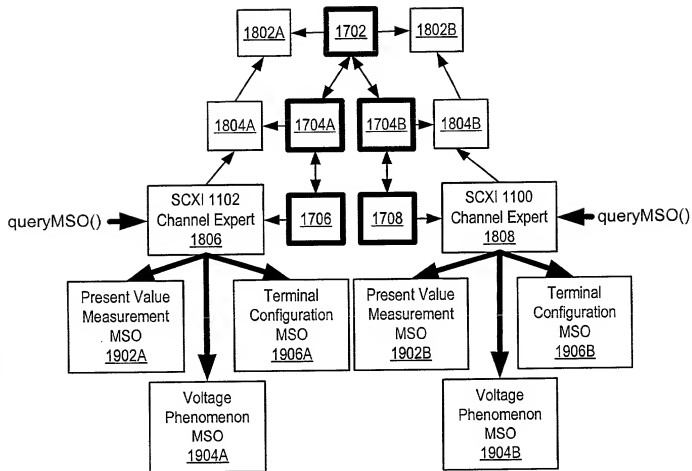


Figure 18



Deserialize Named Channel MSOs

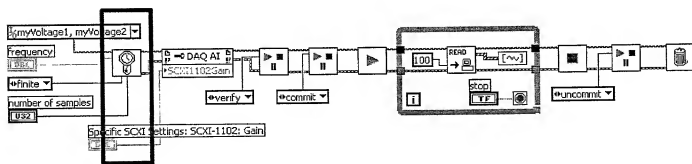
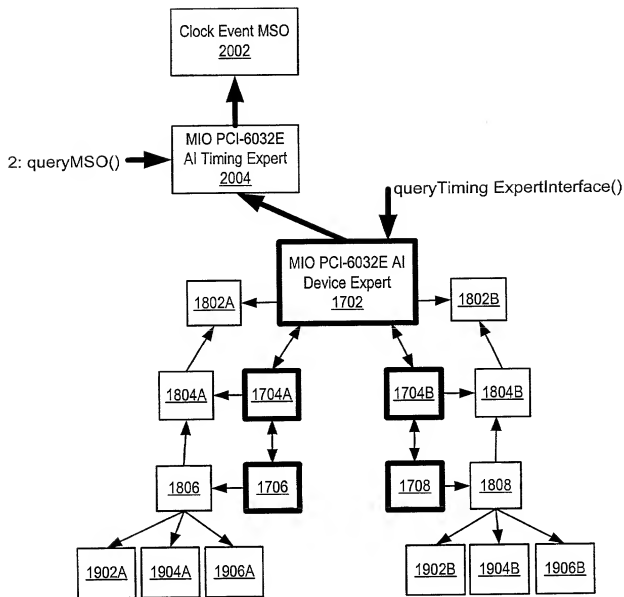


Figure 19



Configure Timing Experts

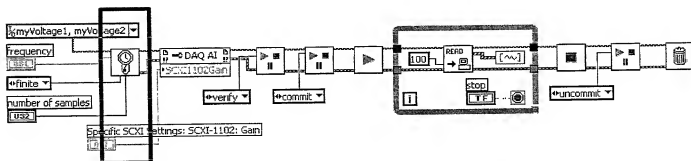
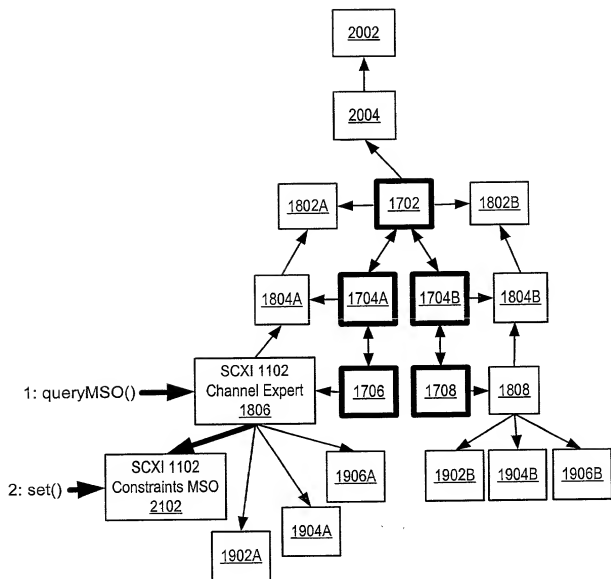


Figure 20

10008792 44304
 10008792 2678000T



MSO Set Calls

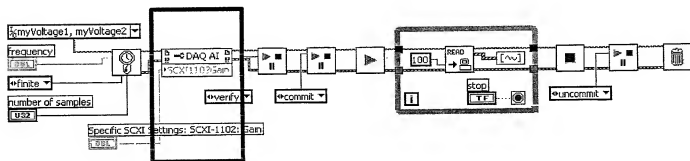
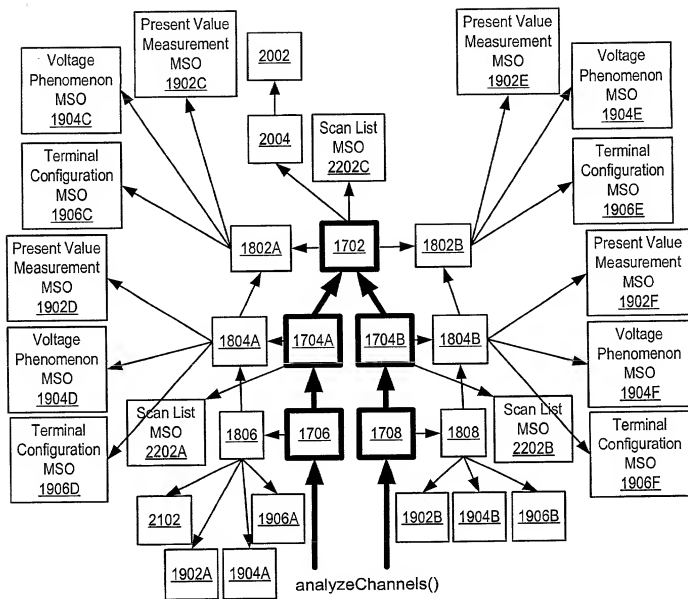


Figure 21



Analyze Channels

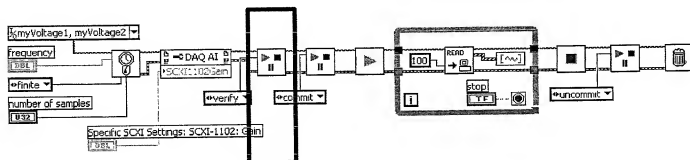
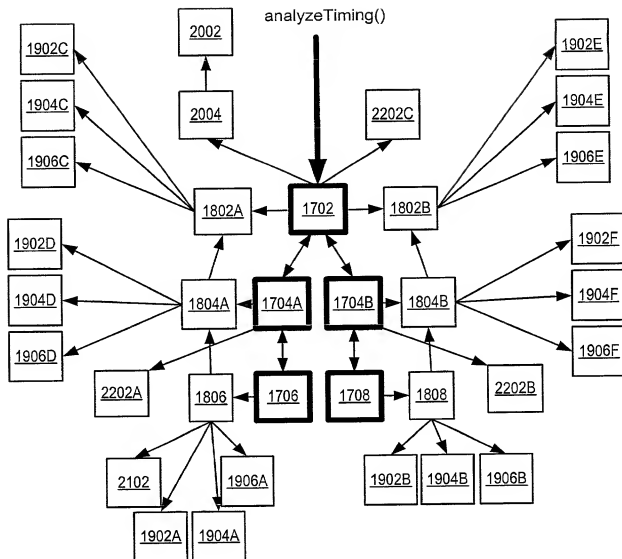


Figure 22

[illegible]

Analyze Timing

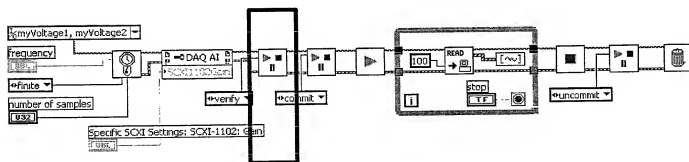
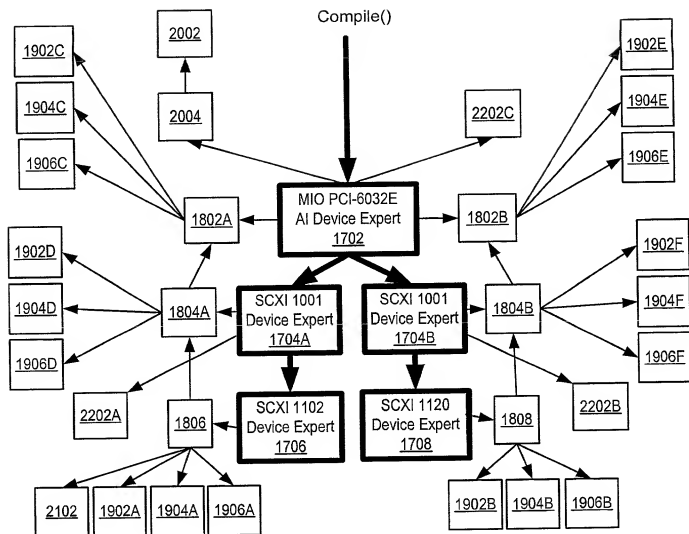


Figure 23

10006792-111301



Compile

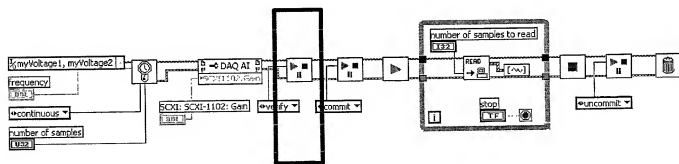


Figure 24A

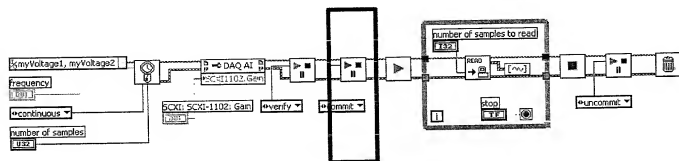
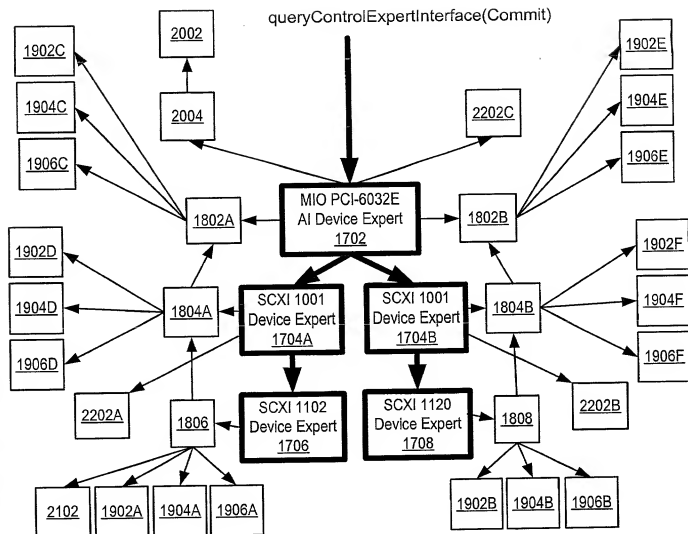
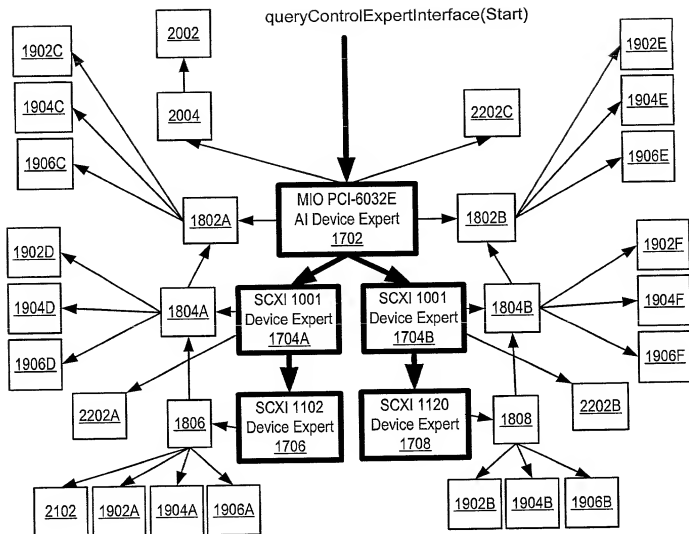


Figure 24B

Top Secret



Start

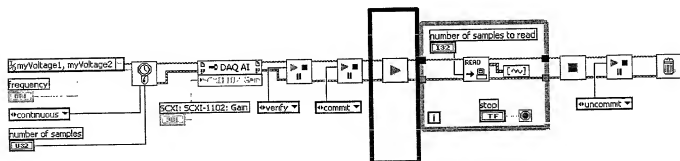


Figure 24C

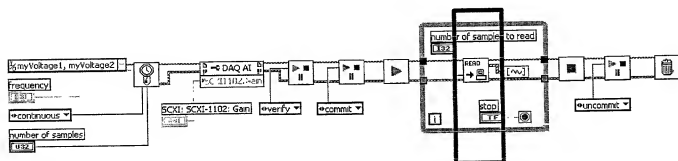
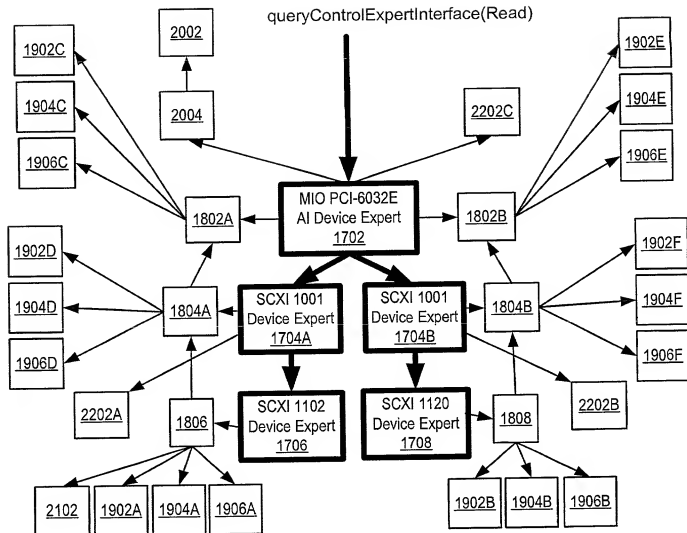


Figure 24D

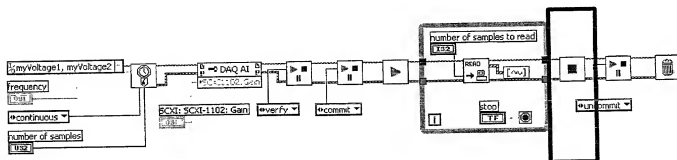
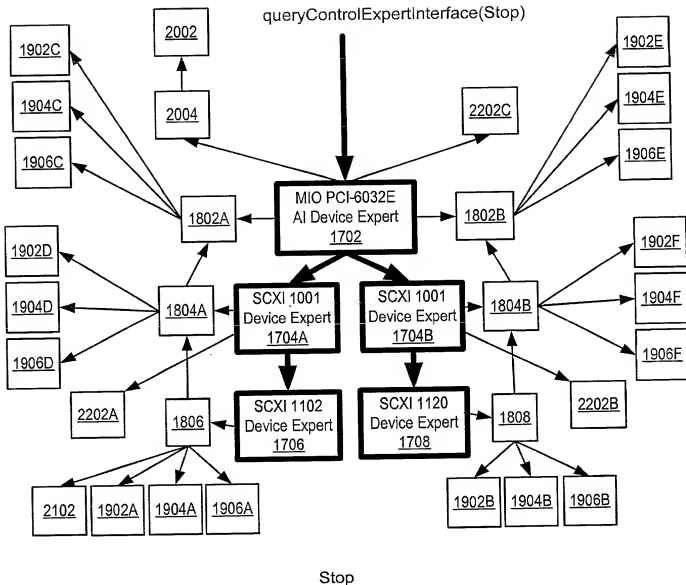
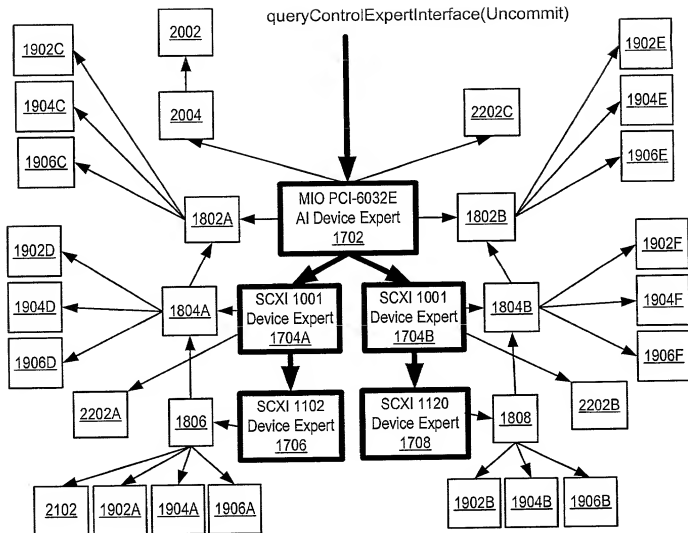


Figure 24E

10008792-111301



Uncommit

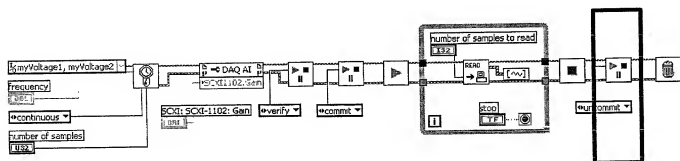


Figure 24F

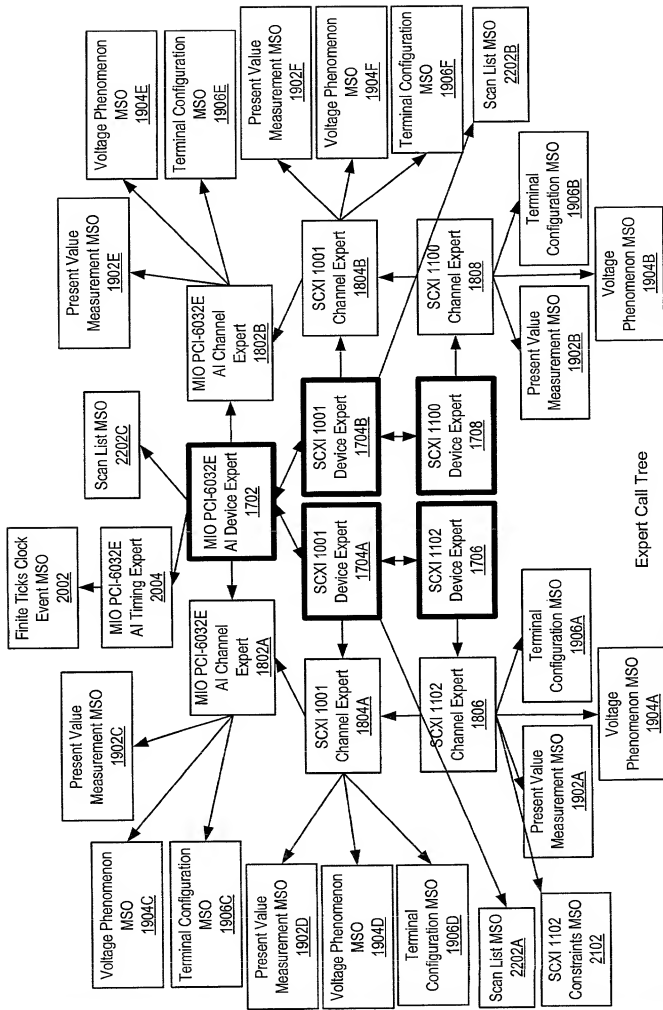


Figure 25

Use Case: Multi-Chassis SCXI Finite Acquisition Using An MIO

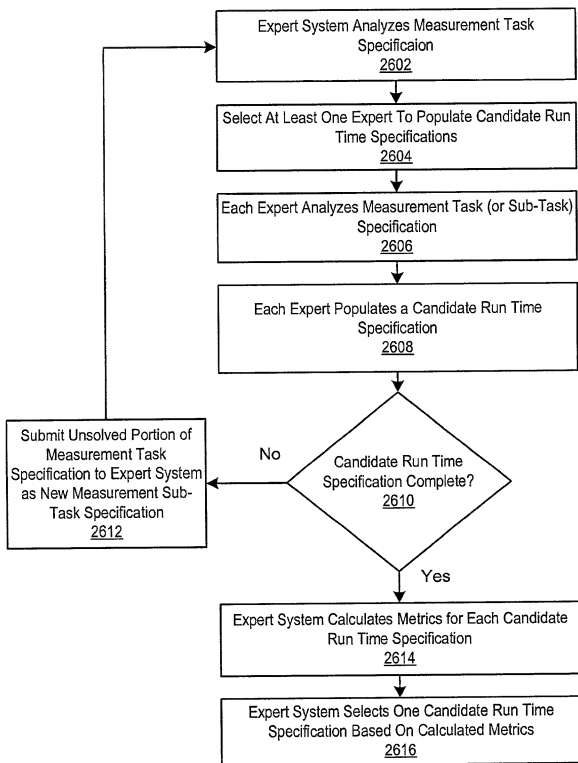


Figure 26

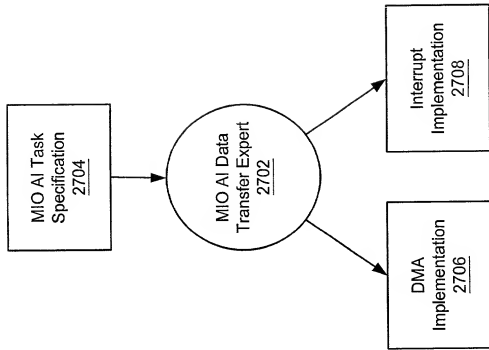


Figure 27

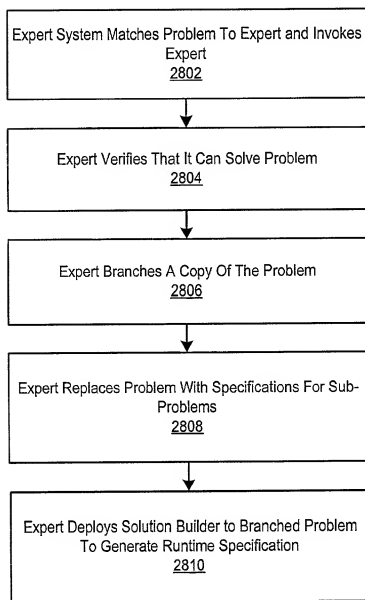


Figure 28

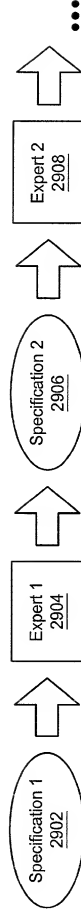


Figure 29

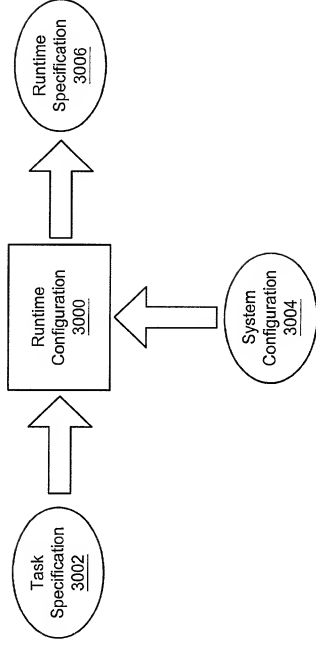


Figure 30

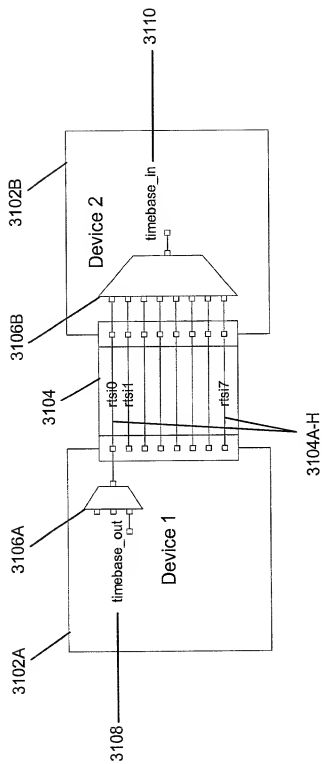


Figure 31

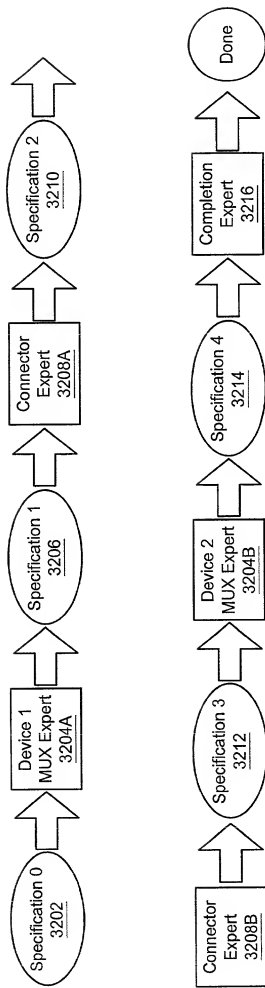


Figure 32

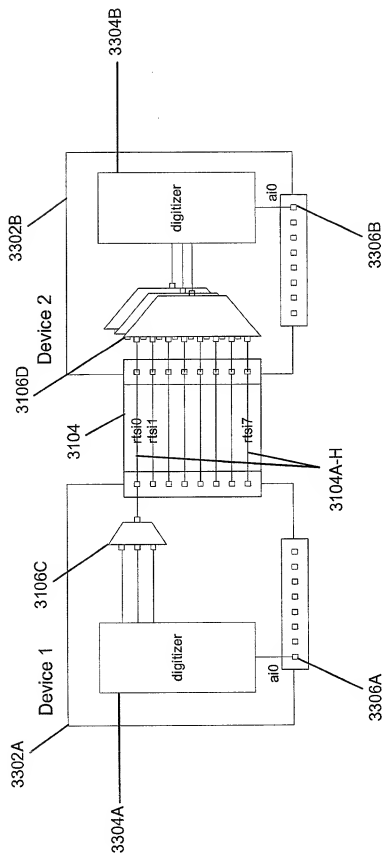


Figure 33

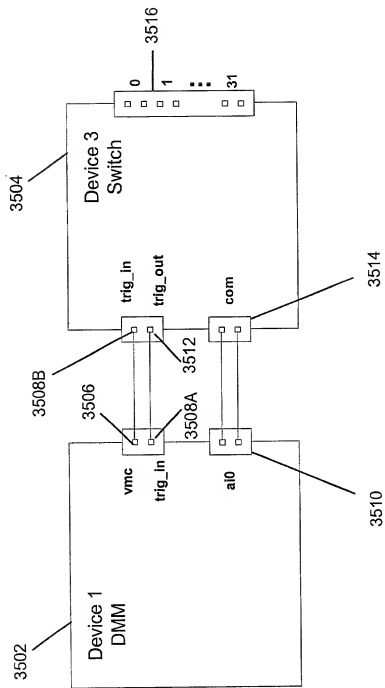


Figure 35

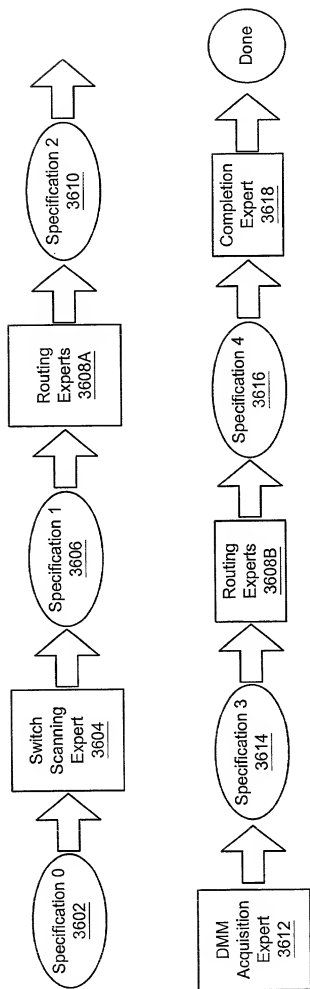


Figure 36

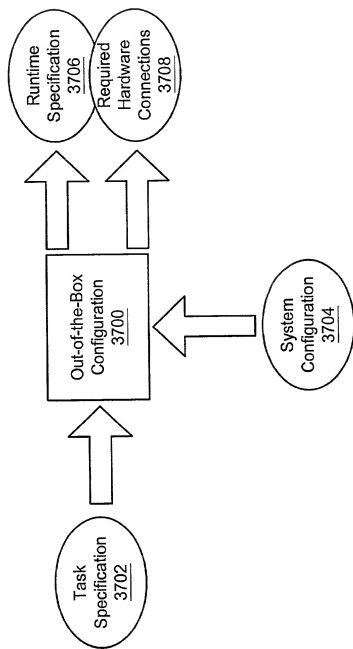


Figure 37

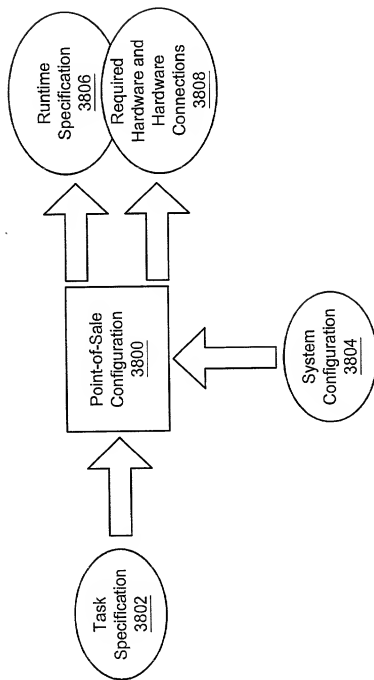
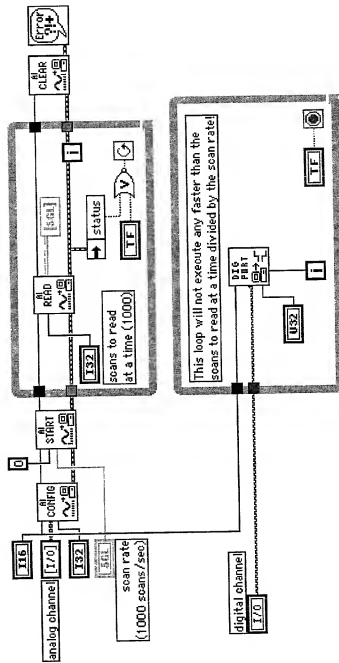
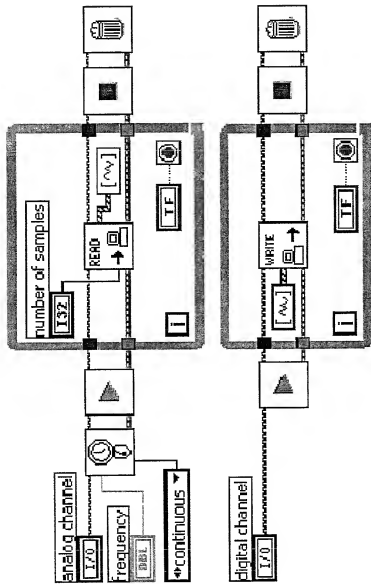


Figure 38



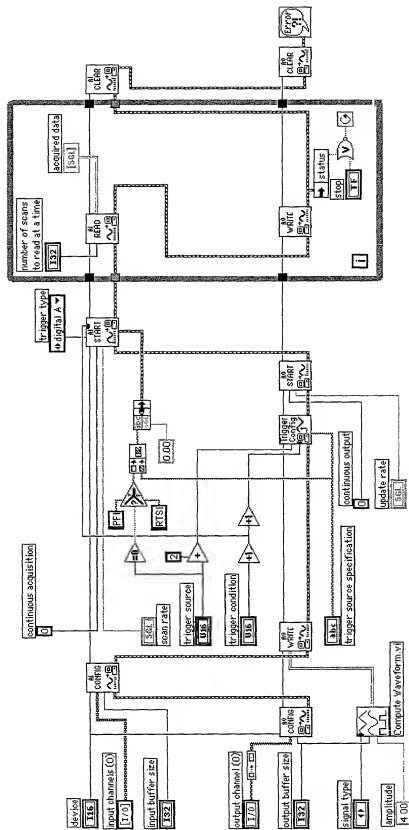
Simultaneous Buffered Analog Input And Single Point Digital Output With Single-Threaded Driver (Prior Art)

Figure 39A (Prior Art)



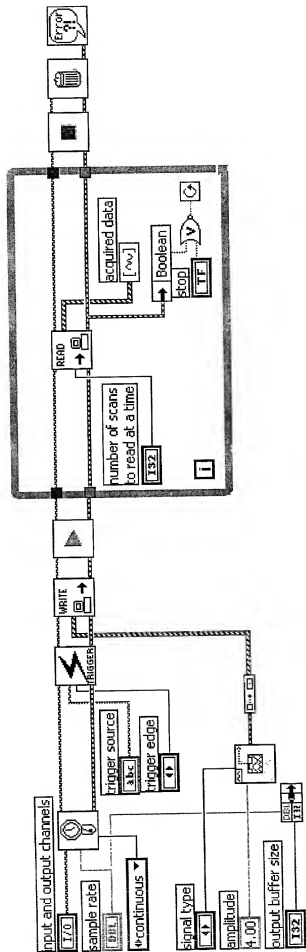
Simultaneous Buffered Analog Input And Single Point Digital Output With Multi-Threaded Driver

Figure 39B



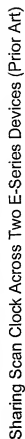
Simultaneous Triggered Buffered A/AO (Prior Art)

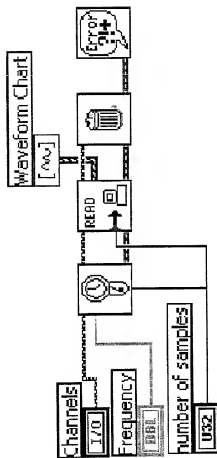
Figure 40A



Simultaneous Triggered Buffered A/D

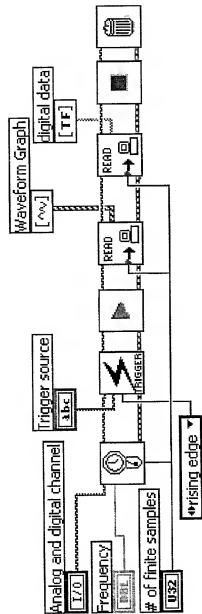
Figure 40B





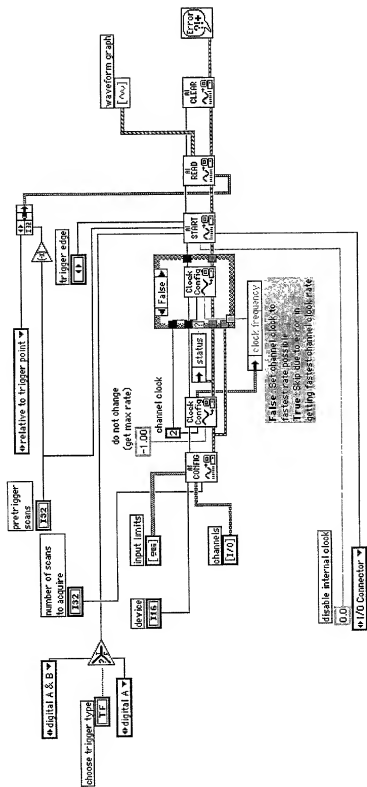
Sharing Scan Clock Across Two E-Series Devices

Figure 41B



Sharing Clock And Trigger, Buffered AI & DI

Figure 42



Acquire N Scans External Scan Clock Digital Trigger (Prior Art)

Figure 43A (Prior Art)

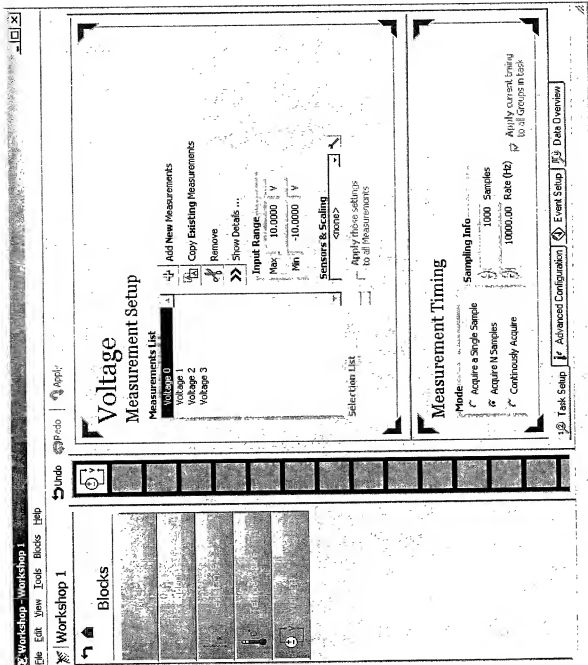
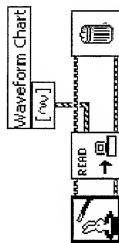


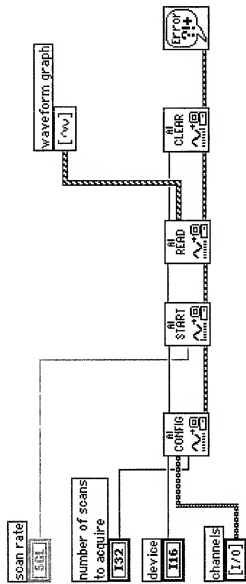
Figure 43B

10008792 111301
10EY11 26/28001



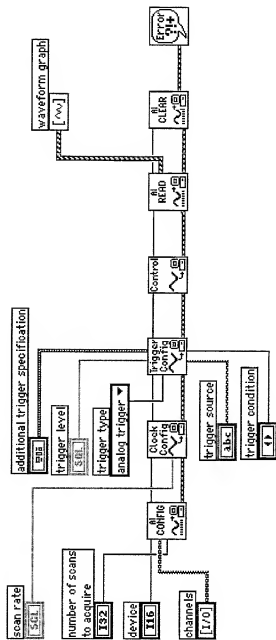
Acquire N Scans External Scan Clock Digital Trigger

Figure 43D



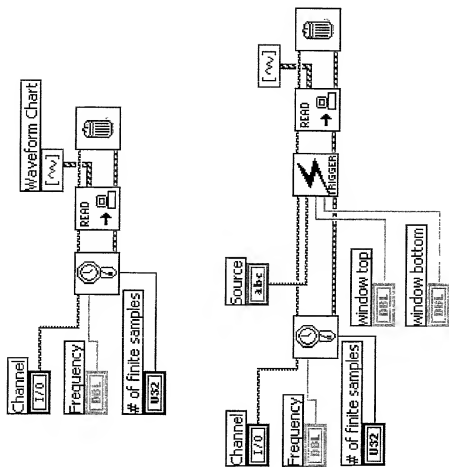
Intermediate Layer (Prior Art)

Figure 45A



Changes For Analog Window Triggering (Prior Art)

Figure 45B



Analog Window Triggering

Figure 45C